



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/634,087	08/08/2000	Phillip M. Braun	00216-489001	4905

26161 7590 08/10/2004

FISH & RICHARDSON PC
225 FRANKLIN ST
BOSTON, MA 02110

EXAMINER

SPISICH, MARK

ART UNIT PAPER NUMBER

1744

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
P.O. Box 1450
ALEXANDRIA, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/634,087
Filing Date: August 08, 2000
Appellant(s): BRAUN ET AL.

MAILED

AUG 10 2004

GROUP 1700

David Howley
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 23 June 2004.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences (or lack thereof) which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is **incorrect**. A correct statement of the status of the claims is as follows:

This appeal involves claims 1,3,8-17,**21**,22 and 23.

Claims 4,5,18-20,24-39,41 and 42 are withdrawn from consideration as not directed to the elected invention or species.

Claims 2,6 and 40 have been canceled.

Claims 7,43 and 44 stand rejected. Appellant is NOT contesting the rejection of these claims.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is substantially correct. The changes are as follows: Claim 21 should have been included in issue #4. **NOTE:** The rejections identified as issues 2 and 3 in the brief have, upon reconsideration and in view of appellant's comments in the brief, been removed and are no longer an issue.

(7) Grouping of Claims

Appellant states that, with regard to issue #1, claims 1,3 and 22 stand or fall together and, with regard to issue #4, claims 1,3,15-16,**21**,22 and 23 stand or fall together. Claim 21, as the rejection thereof is not being separately argued, also stands or falls with claim 1.

Appellant separately argues and states that, with regard to issue #1, claim 17 stands or falls on its own and states that, with regard to issue #4, claims 8-14 stand or fall on their own.

(8) Claims Appealed

The omission of claim 21 represents a substantial error as presented in the Appendix to the brief. Accordingly, claim 21 is correctly written in the Appendix to the Examiner's Answer. The remaining claims (1,3,8-17,22 and 23) in the Appendix are correct.

(9) Prior Art of Record

2,246,867	Thomas et al	6-1941
3,230,562	Birch	1-1966
4,403,623	Mark	9-1983

2,214,420

GB (Pai et al)

9-1989

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,3,17 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Thomas et al (USP 2,246,867). The patent to Thomas discloses an oral care device comprising a head (10) as well as a rocking element (16) having a plurality of protrusions (17) radially extending from a central portion thereof. The ribs or protrusions (17) taper from a relatively wide base to a relatively narrow tip (claim 1, lines 6-7). Claim 1 further includes a recitation that the protrusions are "shaped to penetrate the interproximal and subgingival regions of the oral cavity" (claim 1, lines 7-8). The protrusions (17) of Thomas, as they have the recited taper and relatively narrow tip and further wherein the head thereof is disclosed for use in the oral cavity, are capable of functioning as claimed. With regard to claim 17, the central portion of the rocking element (16) includes a bore or opening therethrough (claim 17, line 2) which receives a pin (18).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3,8-16,22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mark (USP 4,403,623) in view of Birch (USP 3,230,562). Firstly, the patent to Birch discloses an oral care device comprising a body having a head (14) shaped for insertion into the oral cavity as well as a rocking element (18) including a central portion and a plurality of protrusions (20) each of which taper from a relatively wide base to a relatively narrow tip (see, for example, figure 4) which would be capable of penetrating the interproximal and subgingival regions. It is noted, however, that the protrusions (20) of Birch are arranged in a plane transverse to the longitudinal axis of the brush body (in fact, such was added to claim 1 to overcome a prior rejection based on Birch). Thus, the patent to Birch fails to disclose the limitation that the protrusions extend "along the longitudinal axis of the body" (claim 1, lines 5-6). The patent to Mark discloses an oral brush (11) comprising a body (12) including a head (13) for insertion into the oral cavity. The patent to Mark further discloses that the head (13) thereof may be selectively positioned (1) so that it is aligned with the handle (see fig 1) (which is also the orientation of Birch) and (2) so that it is transverse relative to the handle (see fig 2). The patent to Mark concentrates on the pivoted head and does not require a specific head construction (it does, however, state that a brushing and massaging head is

preferred (see the title and column 1, lines 41-47). Within the essential teaching of Mark, one of ordinary skill would recognize that it would be obvious to substitute known brush heads for the head (13) thereof (especially ones that have both a brushing and massaging function). As such, one of ordinary skill would deem it obvious to substitute the head of Birch for that of Mark. Upon reaching such a conclusion, the requirement that the protrusions (20) are "along the longitudinal axis of the body" would be met upon the head assuming the orientation shown in figure 2 of Mark. It is further pointed out that the "longitudinal axis" recited in claim 1 is that of the body as a whole and NOT that of the head. The patent to Birch discloses the tooth cleaning elements (16) in addition to the rocking element (claim 3). The patent to Birch discloses the provision of a mounting element (34) which is sized to mount into a hole in the head (see figure 9) (claim 22). The patent to Birch also discloses the provision of more than one rocking element provided on the head (14) (see figure 3) (claim 23). The patent to Birch discloses that the rocking element(s) are of a resilient material for the purpose of at least in part massaging. One of ordinary skill deem it obvious to use materials having the durometer of claims 15-16 as the mere choice of known materials that would be comfortable to the user would be an obvious design choice. In re Leshin, 125 USPQ 416. The protrusions (20) of Birch, in each of the embodiments thereof, are disclosed as terminating in points (20c) defined by the tip of a cone. As such, Birch clearly suggests that it is desired to provide a thin tip for each of the protrusions (20). In view of the teaching of Birch, the tip width recited in claim 8 would amount to an obvious optimization of a prior art device. Claims 9-11 are similar and all relate to the overall

thickness of the rocking element. Knowledge of the average sizes of toothbrush heads throughout the years (it hasn't really changed) and the relative sizes suggested in the figures of Birch would suggest that the thickness recited in claims 9-11 would be obvious to one of ordinary skill in the art. Within reason, mere changes in size fall within the scope of routine experimentation and optimization of a prior art device so long as the prior art discloses an analogous component that one of ordinary skill would have no reason to believe that the dimensions suggested therein are significantly different from that claimed. With regard to the overall diameter of the rocking element (claims 12-14), one of ordinary skill would know perfectly well which sizes would fit comfortably within the user's mouth and that slight modification of the overall size thereof would be obvious to one having ordinary skill to suit people of different ages, etc.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mark (USP 4,403,623) and Birch (USP 3,230,562) as applied to claim 1 above, and further in view of GB 2,214,420 (hereinafter '420). The prior art discloses the invention substantially as claimed with the exception of the rocking element being co-molded with the head. '420 discloses the co-molding of an elastomeric tooth contacting medium (5) with the head (2). It would have been obvious to one of ordinary skill to have modified the device of Mark in view of Birch as such to produce a more permanent connection between the two by co-molding the massage element with the head as taught by '420.

(11) Response to Argument

It is again pointed out (for the benefit of the members of the Board of Appeals) that appellant has chosen NOT to dispute the rejection of claims 7, 43 and 44. Also,

appellant (and the members of the Board of Appeals) should note that the examiner has decided to withdraw the rejections identified as issues 2 and 3 in appellant's brief.

Appellant's remaining arguments will be addressed in the order that they appear in the Brief. Appellant's first argument pertains to the patent to Thomas et al (USP 2,246,867) firstly as applied to claim 1 and secondly as applied to claim 17. The remaining claims that are rejected in view of Thomas are not individually argued by appellant. With regard to claim 1, appellant relies on the recitation of "and wherein the tips are shaped to penetrate the interproximal and subgingival regions of the oral cavity" (claim 1, lines 7-8). Appellant does not dispute the fact that Thomas discloses an oral care device as claimed up until the passage noted above, in particular to the rocking member (16) including a plurality of protrusions (17) radially extending from a central portion thereof and tapering from a relatively wide base to a relatively narrow tip. Appellant takes the position that the protrusions (17) of Thomas are small ribs or corrugations and are not shaped to function in the manner described in the noted passage at the end of claim 1. The examiner respectively takes the position that the protrusions (17) of Thomas are located in a position on the head (14) such that they would be brought into contact with the interproximal and subgingival regions and would penetrate these regions to the extent required by claim 1. With regard to claim 17, the rocking member clearly includes an opening therethrough which receives the pin (18) (see figure 3 and page 1, column 2, lines 18-21). Claim 17 does not preclude the opening from being the one identified as such in Thomas. The next argument pertains to the patent to Birch (USP 3,230,562) as it is combined with Mark (USP 4,403,623).

This combination was necessitated by the addition to claim 1 of the limitation that the protrusions (claim 1, lines 5-6). The logic used by the examiner to combined the teaching of Mark (USP 4,403,623) and Birch (USP 3,230,562) will be further explained at this time. The patent to Mark discloses a device (11) comprising a body (12) defining a longitudinal axis as well as a cleaning/massaging head (13) shaped for insertion into the oral cavity and which is adapted to be selectively positioned (1) in a first position aligned with the longitudinal axis of the body (12) (figure 1; which is the orientation of Birch) and (2) in a second position transverse to the longitudinal axis of the body (12). As the patent to Mark is primarily concerned with the two positions of a brush head and is not particularly concerned with the details of the head, one of ordinary skill would deem it obvious to substitute any known oral brush head for the one of Mark based on them being functional equivalence. This is especially true in the present instance given the fact that Mark also discloses a head (13) which is adapted to both brush and massage. If the Board can concede that Mark and Birch are capable of being combined as described above, then the recitation in claim 1 that the protrusions (20) extend along the longitudinal axis of the body would be met upon the head assuming the position illustrated in figure 2 of Mark. As pointed out earlier, claim 1 defines the longitudinal axis as that of the body (which is #12 in Mark) and not that of the head. Appellant's final argument(s) pertains to claims 8-14. These claims recite particular sizes or dimension of the rocking member including the protrusion tip width (claims 8-9), thickness (claims 10-11) and overall diameter (claims 12-14). The examiner has not ignored these limitations and has considered them in light of what one of ordinary skill

would reasonably glean upon close inspection of the prior art, namely Birch (USP 3,230,562). The mere lack of a disclosure of a particular dimension or size is not necessarily a teaching away from that claimed in a particular application. Optimization of a prior art device, through routine experimentation, amounts to obvious modification of a prior art device meeting the same general principles of the claimed device. To some degree common sense comes into play with regard to claims 8-14. One of ordinary skill in the toothbrush art is clearly aware of the relative sizes of brush heads which are suitable for insertion into the human mouth. Given this fact and at least the relative proportions suggested in the figures of Birch it would not be unreasonable to assume that it would be obvious to make the overall diameter of the rocking member to be, for example, less than one inch (claim 12). Any larger and the brush would not fit within the user's mouth.

For the above reasons, it is believed that the rejections should be sustained.

Art Unit: 1744



Respectfully submitted,

Mark Spisich
Primary Examiner
Art Unit 1744

Mark Spisich
August 5, 2004

Conferees
Robert J. Warden
Roy V. King

FISH & RICHARDSON PC
225 FRANKLIN ST
BOSTON, MA 02110

APPEAL CONFERENCE:

ROY KING 

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

APPEAL CONFERENCE:



APPENDIX TO EXAMINER'S ANSWER (replaces page 8 of Appellant's Brief)

14. The oral care device of claim 1 wherein the rocking element has an overall diameter of from 0.550 to 0.650 inches.

15. The oral care device of claim 1 wherein the rocking element is formed of a material having a durometer reading of from about 20 to 90 Shore A.

16. The oral care device of claim 1 wherein the rocking element is formed of a material having a durometer reading of from about 40 to 80 Shore A.

17. The oral care device of claim 1 wherein the central portion includes an opening therethrough sized to allow the rocking element to conform to a tooth's shape during use.

21. The oral care device of claim 1 wherein the rocking element is co-molded with the head.

22. The oral care device of claim 1 wherein the rocking element further comprises a mounting element sized to mount into a hole in the head.

23. The oral care device of claim 1 further comprising a second rocking element.